

Course Unit Descriptor

Study Programme: Crop science			
Course Unit Title: Vegetable Crops			
Course Unit Code: 19.RIP012			
Name of Lecturer(s): Žarko Ilin			
Type and Level of Studies: Undergraduate academic studies			
Course Status (compulsory/elective): Compulsory			
Semester (winter/summer): Summer			
Language of instruction: English			
Mode of course unit delivery (face-to-face/distance learning): Face-to-face/distance learning			
Number of ECTS Allocated: 5			
Prerequisites: None			
Course Aims: Introducing theoretical and practical knowledge of vegetable production to students, especially with botanical characteristics, growing conditions and modern technology of growing vegetable crops.			
Learning Outcomes: Knowledge. The student should demonstrate knowledge (understanding): Definitions of vegetable, knowledge of the short history of growing vegetables, importance of vegetable in human nutrition, the impact of environmental factors on the vegetable production and vegetable seedlings, reactions of vegetable at low and high temperatures and drought. Student need to acquire knowledge about the production of vegetable crops, the impact of agro-technical measurements on production of vegetables, proper fertilization, conducting regular tending and protection from diseases, pests, weeds, etc. It is important to know the elements that serve to identify the maturity of vegetables, method and duration of storage. Skills. Student should be able to: Plan volume of open field vegetable production, determinate sowing norms, plan the size and shape of the growing space, estimate labor costs, effective learning, critical opinion, teamwork, presentation of knowledge, evaluation of teaching and evaluation of learning outcomes.			
Syllabus: Theory: Theoretical classes in general part includes definition of vegetable, a short history of cultivation and Geocentric vegetable origin, basic characteristics and classification of vegetable species, biological, agrotechnical, ecological and economic importance of vegetable production, place and method of vegetable production, vegetable growing region, growing conditions, agro-technical measures in vegetable production (general, specific and special measures in vegetable production), systems of growing vegetables in open field (in garden and in field), methods of reproduction vegetables, production of seedlings, harvesting, packing, transport and storage of vegetables. In a special part of vegetable crops are processed botanical background and culture of origin, classification, production volume in the world and in our country, the basic chemical characteristics, biology of growth and development, basic biological properties (requirements for environmental conditions), the method of production, a place in rotation, tillage, requests to mineral nutrition, fertilization, seeding and planting, care of plants, harvesting, yield and seed production. The following groups of cultures are processed: root vegetables (carrots, parsley, parsnip, celery, beets, radishes and radish). Bulb vegetables (onions, garlic, leeks, shallots and Welsh onion). Tuber vegetables (potatoes), brassicas (cabbage, kale, cauliflower, broccoli, kohlrabi, Brussels sprout, collards, cabbage, pakchoi the chinese cabbage). Leafy vegetables (lettuce, spinach, endive and radicchio). Fruit vegetables (peppers, tomatoes, eggplants, cucumbers, watermelons, melons, pumpkins, peas, green beans and sweet corn), production of fungi (mushrooms and oyster mushrooms). Practice: Exercise, Other modes of teaching, Study research: summary and individual task related to the morphology of the species. Introducing vegetable crops, vegetables classification. The basic characteristics of seeds vegetable species (biological, morphological and qualitative characteristics of seeds), the division of seeds, seed identification. The morphological characteristics of the species from the family Alliaceae, Apiaceae, Brassicaceae, Solanaceae, Cucurbitaceae, Fabaceae, Asteraceae, Chenopodiaceae, Poaceae, Poligonaceae.			
Required Reading: Buckingham, A. (2008). Grow vegetables. DK publishing. Yamaguchi, M. (1983). World vegetables, Principles, Production and Nutritive Values.			
Weekly Contact Hours: 6		Lectures: 4	Practical work: 2
Teaching Methods: Lectures, Practice/ Practical classes, Laboratory exercises			
Knowledge Assessment (maximum of 100 points): 100			
Pre-exam obligations	points	Final exam	points
Active class participation	5	written exam	

Practical work	5	oral exam	70
Preliminary exam(s)	20	
Seminar(s)			
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.			